

Linzer biol. Beitr.	47/2	1113-1118	30.12.2015
---------------------	------	-----------	------------

A new myrmecophilous species of *Eurysunius* from Turkey (Coleoptera: Staphylinidae: Paederinae)

Volker ASSING

A b s t r a c t : *Astenus* (*Eurysunius*) *kociani* nov.sp. (Turkey: Nevşehir) is described, illustrated, and distinguished from other species of *Eurysunius* REITTER, 1909 known from Turkey, particularly the similar and evidently closely allied *Astenus sexsetosus* ASSING, 2002. The species was found associated with an unidentified species of *Tetramorium* MAYR, 1855.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Astenus*, *Eurysunius*, Turkey, taxonomy, new species, myrmecophily.

Introduction

According to SCHÜLKE & SMETANA (2015), the subgenus *Eurysunius* REITTER, 1909 of the genus *Astenus* DEJEAN, 1833 currently includes 52 species and two subspecies distributed in the West Palaearctic region (including Middle Asia). Recent observations suggest that most, if not all these species may be associated, some of them facultatively (see ASSING 2014), with ants of the genus *Tetramorium* MAYR, 1855 (ASSING 2003). It seems worth noting that *Astenus setifer* CAMERON, 1930 from Japan, a species feeding on entomobryid springtails in nests of *Tetramorium tsushimae* EMERY, 1925 (MARUYAMA et al. 2013) and currently assigned to the subgenus *Astenopleuritus* COIFFAIT, 1982 (SCHÜLKE & SMETANA in press), clearly belongs to *Eurysunius*, too. However, the present subgeneric classification of *Astenus* is highly artificial, and preliminary studies have shown that numerous non-myrmecophilous species may have to be moved to *Eurysunius* from other subgenera (ASSING in prep.).

According to ASSING (2011), six myrmecophilous *Eurysunius* species were known from Turkey. A seventh species, *A. sandiklicus*, was described by ANLAŞ (2014), who states that the "species is distinguished from all its congeners by the male sexual characters, especially the morphology of the aedeagus", without specifying what precisely these differences are. The illustrations provided in the original description do not reveal any differences whatsoever between the aedeagus of *A. sandiklicus* and that of the geographically close *A. sultanicus* ASSING, 2010 suggesting that *A. sandiklicus* may represent a junior synonym. However, owing to the somewhat unclear photographs, this question cannot be decided without examination of actual specimens and *A. sandiklicus* is regarded as a species of doubtful status. Recently, ANLAŞ (2015) described four more *Eurysunius* species from western Anatolia. Again, the quality of the illustrations both of

the external and of the male sexual characters may render an interpretation of these species difficult.

Material of Staphylinidae forwarded to me for identification by Matúš Kocian (Prague) included a male of *Eurysunius*. An examination of this specimen revealed that it represented an undescribed species.

Material and methods

The holotype is deposited in the author's collection.

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). The images of external characters were created using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software. A digital camera (Nikon Coolpix 995) was used for the remaining photographs.

Body length was measured from the anterior margin of the mandibles (in resting position) to the abdominal apex, the length of the forebody from the anterior margin of the mandibles to the posterior margin of the elytra, head length from the anterior margin of the frons to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Description

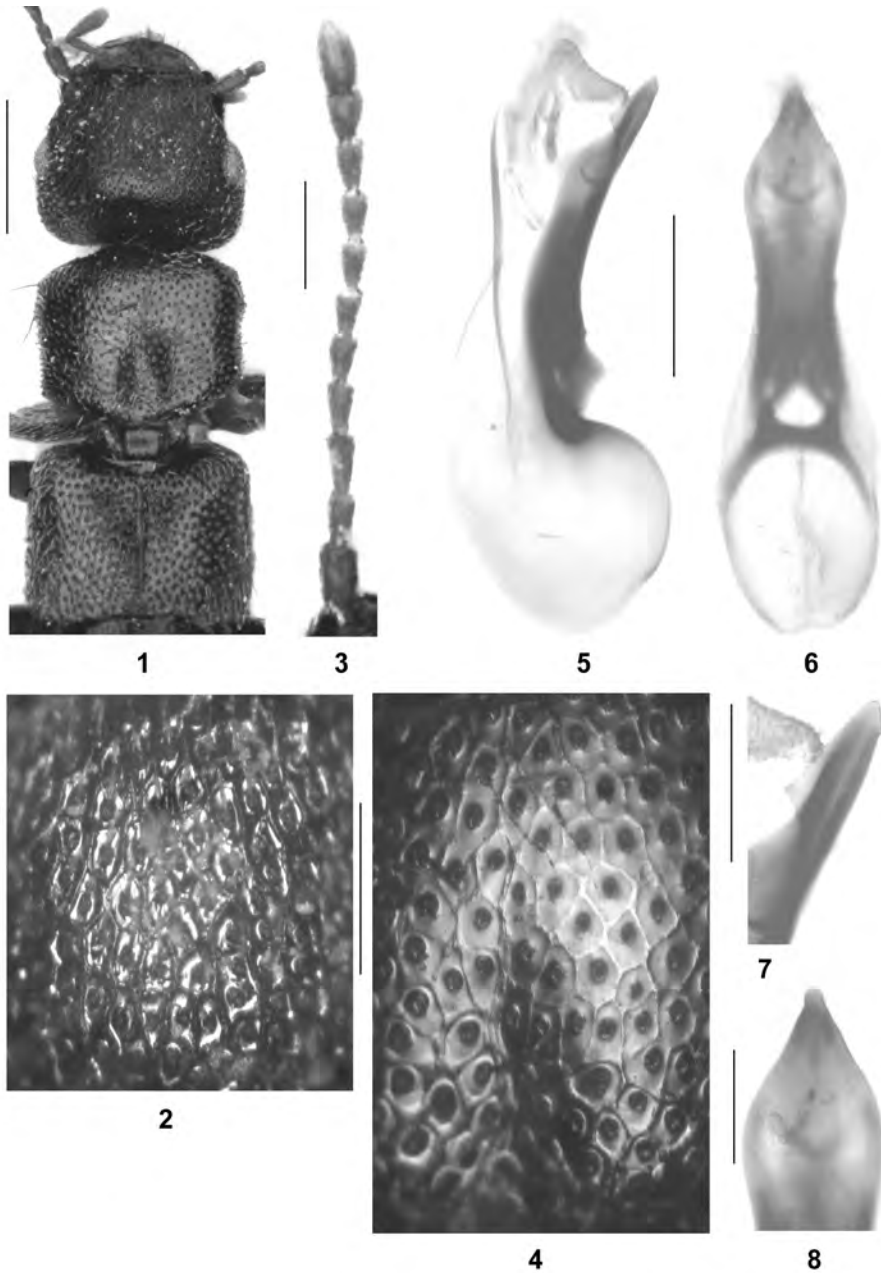
Astenus (Eurysunius) kociani nov.sp. (Figs 1-12)

Type material: Holotype ♂: "Turcia cent., Gümüşkent, 20.IV.1992, Kapler lgt., 5/1992 / Holotypus ♂ *Astenus kociani* sp.n. det. V. Assing 2015" (author's collection).

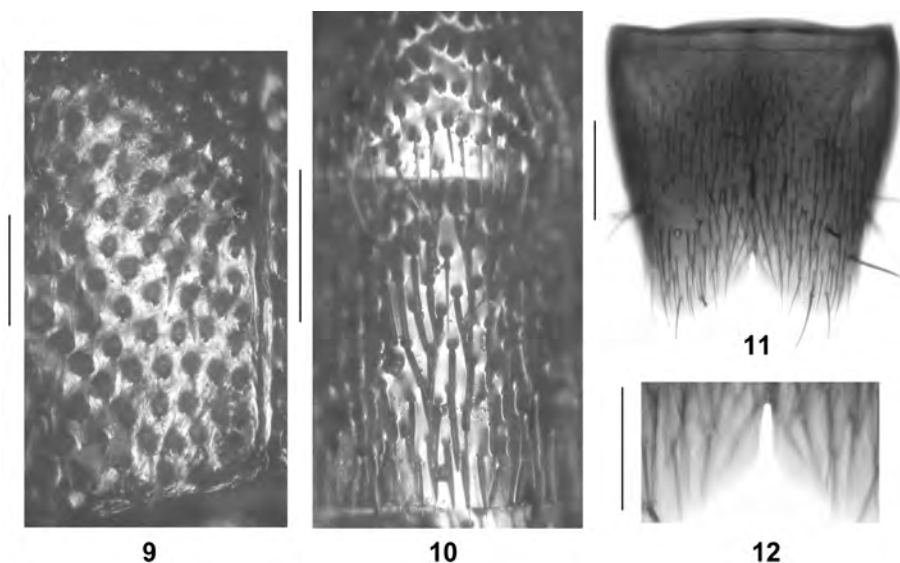
Etymology: The species is dedicated to Matúš Kocian (Prague), specialist of Tachyporinae, also in appreciation of the generous gift of the holotype.

Description: Body length 4.6 mm; length of forebody 2.2 mm. Coloration: head and pronotum blackish; elytra dark yellowish-brown, with the region near the scutellum infuscate; abdomen blackish, with the posterior margins of segments VI-VIII reddish-brown; legs with the femora blackish-brown, the tibiae brown, and the tarsi pale-brown; antennae reddish-brown, with antennomeres III-IX somewhat darker brown.

Head (Fig. 1) transverse, 1.18 times as broad as long; lateral margins behind eyes subparallel; median dorsal portion noticeably elevated; punctation umbilicate and very dense, but shallow (Fig. 2). Eyes moderately small, nearly as long as postocular region in dorsal view. Antenna (Fig. 3) 1.15 mm long; antennomeres IV-X distinctly oblong.



Figs 1-8: *Astenus kociani* nov.sp.: (1) forebody; (2) median dorsal portion of head; (3) antenna; (4) postero-median portion of pronotum; (5-6) aedeagus in lateral and in ventral view; (7-8) apical portion of ventral process of aedeagus in lateral and in ventral view. Scale bars: 1: 0.5 mm; 3, 5-6: 0.2 mm; 2, 4, 7-8: 0.1 mm.



Figs 9-12: *Astenus kociani* nov.sp.: (9) left elytron; (10) median portion of abdominal tergites VI-VII; (11) male sternite VIII; (12) postero-medial portion of male sternite VIII. Scale bars: 10-11: 0.2 mm; 9, 12: 0.1 mm.

Pronotum (Fig. 1) 1.2 times as broad as long and approximately as broad as head, posteriorly with oblong median impression; lateral margins in posterior two-thirds weakly concave in dorsal view, each with three long black setae, one in anterior angle, one at anterior third, and one in posterior angle, these setae approximately three-fourths as long as lateral margins; punctation seemingly (at lower magnifications) non-umbilicate, with the glossy interstices as broad as, or slightly broader than the punctures, at higher magnification with a network of microstriae (Fig. 4).

Elytra (Fig. 1) approximately 0.65 times as long as pronotum; punctation distinctly granulose and moderately dense (Fig. 9). Hind wings completely reduced.

Abdomen slightly broader than elytra and with very glossy interstices; punctation of tergites III-V very dense and somewhat granulose, that of tergites VI-VII less dense and not distinctly granulose (Fig. 10); posterior margin of tergite VII with very narrow rudiment of a palisade fringe (Fig. 10).

♂: sternite VIII shaped as in Fig. 11, posterior incision in the middle very narrow and acute (Fig. 12); aedeagus 0.7 mm long and shaped as in Figs 5-8.

Comparative notes: The new species differs from all other myrmecophilous *Eurysunius* species recorded from Turkey, except *A. sexsetosus* ASSING, 2002 from Kayseri, by the presence of three (rather than two) long setae on either of the lateral margins of the pronotum. Based on the similarly derived punctation of the pronotum (seemingly non-umbilicate, interstices with network of microstriae) and the similarly derived chaetotaxy of the pronotum (lateral margins each with three long setae), *A. kociani* is evidently closely related to *A. sexsetosus*, from which it is distinguished by the darker legs and antennae (*A. sexsetosus*: yellowish brown), the shape of the head (*A. sexsetosus*: head broader than pronotum and lateral margins diverging behind eyes), the

smaller eyes (*A. sexsetosus*: eyes distinctly shorter than postocular region), and by the shape of the aedeagus (*A. sexsetosus*: more strongly curved in lateral view, stouter and apically less acute in ventral view). For illustrations of *A. sexsetosus* and other myrmecophilous *Eurysunius* species see ASSING (2002, 2007, 2010, 2011), for photographs of the doubtful *A. sandiklicus* and four other recently described species from western Anatolia see ANLAŞ (2014, 2015).

Distribution and natural history: The type locality is situated in Nevşehir province in central Anatolia. The holotype was collected from the nest of an unidentified *Tetramorium* species, as can be inferred from the *Tetramorium* worker glued next to the holotype.

Acknowledgements

My sincere thanks go to Matúš Kocian for the generous gift of the holotype. Benedikt Feldmann (Münster) proof-read the manuscript.

Zusammenfassung

Astenus (Eurysunius) kociani nov.sp. (Türkei: Nevşehir) wird beschrieben, abgebildet und von anderen aus der Türkei nachgewiesenen, myrmecophilen Arten der Untergattung *Eurysunius* REITTER, 1909, insbesondere von dem ähnlichen und offensichtlich nah verwandten *Astenus sexsetosus* ASSING, 2002 unterschieden. Die neue myrmecophile Art wurde bei *Tetramorium* sp. gefunden.

References

- ANLAŞ S. (2014): A new species of *Astenus (Eurysunius)* DEJEAN, 1833 from Turkey (Coleoptera: Staphylinidae, Paederinae). — *Türkiye Entomoloji Dergisi* **38** (3): 239-243.
- ANLAŞ S. (2015): Four new species of *Astenus (Eurysunius)* DEJEAN, 1833 from Western Anatolia, Turkey (Coleoptera: Staphylinidae, Paederinae). — *Zootaxa* **3986** (4): 472-482.
- ASSING V. (2002): On the Turkish and Caucasian species of *Eurysunius*, subgenus of *Astenus* DEJEAN, with an appendix on *A. breuili* JARRIGE (Coleoptera: Staphylinidae, Paederinae). — *Linzer Biologische Beiträge* **34** (1): 265-274.
- ASSING V. (2003): New species and records of *Eurysunius*, subgenus of *Astenus* DEJEAN, from the Iberian Peninsula (Coleoptera). — *Linzer Biologische Beiträge* **35** (2): 693-700.
- ASSING V. (2007): New species and additional records of Staphylinidae from Turkey V (Coleoptera). — *Stuttgarter Beiträge zur Naturkunde Serie A (Biologie)* **700**: 1-64.
- ASSING V. (2010): On the Staphylinidae of Turkey VII. Five new species and additional records (Coleoptera: Staphylinidae). — *Koleopterologische Rundschau* **80**: 71-102.
- ASSING V. (2011): On the Staphylinidae of Turkey VIII. Eleven new species, two new synonymies, a new combination, and additional records (Coleoptera: Staphylinidae). — *Koleopterologische Rundschau* **81**: 179-227.
- ASSING V. (2014): On the Staphylinidae of Sardinia, Italy (Insecta: Coleoptera). — *Linzer Biologische Beiträge* **45** (1): 415-428.
- MARUYAMA M., KOMATSU T., KUDO S., SHIMADA T. & K. KINOMURA (2013): The guests of Japanese ants. — Tokai University Press, Minamiyama: i-xii, 1-208.

SCHÜLKE M. & A. SMETANA (2015): Staphylinidae, pp. 304-1134. – In: LÖBL I. & D. LÖBL (eds), Catalogue of Palaearctic Coleoptera. Volume 2. Hydrophiloidea – Staphylinoidea. Revised and updated edition. — Leiden: Brill: xxvi + 1702 pp.

Author's address:

Dr. Volker ASSING
Gabelsbergerstr. 2
D-30163 Hannover, Germany
E-mail: vassing.hann@t-online.de